

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A calculation method for physical body deformation under load propagation which is a method of displaying a load propagation displacement of a physical body on a rigid physical body which undergoes a displacement constraint from a surrounding in a boundary which does not undergo the displacement constraint from ~~[[a]]~~ the surrounding, said method comprising:

virtually forming a first material agent having a shape of a hexahedron or a plane ~~virtually formed~~ in the physical body at a position of a load exerted to an arbitrary position of the physical body~~[[,]]~~;

virtually forming a second material agent having the same shape ~~virtually formed~~ as the first material agent at a contiguous face other than a face of the first material agent exerted with the load~~[[,]]~~;

virtually forming a third, a fourth,~~[[...]]~~ up to an n-th material agent ~~virtually formed~~ similarly as the first material agent and successively up to a boundary between the physical body and the boundary which does not undergo the displacement constraint in the physical body and/or the rigid physical body which undergoes the displacement constraint; and

virtually forming boundary agents having predetermined shapes ~~virtually formed~~ at a contact face between the physical body and the boundary which does not undergo the displacement constraint and/or the rigid physical body which undergoes the displacement constraint, wherein

in the first to n-th material agents,

(i) with regard to a direction of the load, a predetermined load in accordance with a material property thereof is transmitted to an upper face and a lower face of the physical body in the load direction, a predetermined load in accordance with a strain characteristic of the

physical body is transmitted to a face orthogonal to the load direction, and a load which undergoes the predetermined displacement constraint is transmitted to an upper face in the load direction of ~~either~~ one material agent contiguous to ~~[[the]]~~ another material agent,

(ii) with regard to the load, in the boundary agent formed in the boundary which does not undergo the displacement constraint, a load having a value the same as a value of the load from ~~[[the]]~~ a contiguous material agent in the load direction is transmitted, and

(iii) in the boundary agent formed in the rigid physical body which undergoes the displacement constraint, with regard to the load from the contiguous material agent, a load having a value the same as a value of the load is transmitted in a direction reverse to a direction of the load to thereby display the load propagation displacement of the physical body.

Claim 2 (Currently Amended): The display method according to Claim 1, ~~characterized in that~~ wherein the first through the n-th material agents are formed in a load propagation direction when the transmitted load is larger than a predetermined threshold value.

Claim 3 (Currently Amended): A computer readable record medium recorded with a program for displaying a load propagation displacement of a physical body by a method of displaying a load propagation displacement of a physical body on a rigid physical body which undergoes a displacement constraint from a surrounding in a boundary which does not undergo the displacement constraint from ~~[[a]]~~ the surrounding by a computer screen, said method comprising:

virtually forming a first material agent having a shape of a hexahedron or a plane ~~virtually formed~~ in the physical body at a position of a load exerted to an arbitrary position of

the physical body[[,]];

virtually forming a second material agent having the same shape ~~virtually formed as~~
the first material agent at a contiguous face other than a face of the first material agent
exerted with the load[[,]];

virtually forming a third, a fourth,[[...]] up to an n-th material agent ~~virtually formed~~
similarly and successively up to a boundary between the physical body and the boundary
which does not undergo the displacement constraint in the physical body and/or the rigid
physical body which undergoes the displacement constraint; and

virtually forming boundary agents having predetermined shapes ~~virtually formed~~ at a
contact face between the physical body and the boundary which does not undergo the
displacement constraint and/or the rigid physical body which undergoes the displacement
constraint, wherein

in the material agents,

(i) with regard to a direction of the load, a predetermined load in accordance with a
material property thereof is transmitted to an upper face and a lower face of the physical body
in the load direction, a predetermined load in accordance with a strain characteristic of the
physical body is transmitted to a face orthogonal to the load direction, and a load which
undergoes the predetermined displacement constraint is transmitted to an upper face in the
load direction of ~~either~~ one material agent contiguous to [[the]] another material agent,

(ii) with regard to the load, in the boundary agent formed in the boundary which does
not undergo the displacement constraint, a load having a value the same as a value of the load
from [[the]] a contiguous material agent in the load direction is transmitted, and

(iii) in the boundary agent formed in the rigid physical body which undergoes the
displacement constraint, with regard to the load from the contiguous material agent, a load

having a value the same as a value the load is transmitted in a direction reverse to a direction of the load to thereby display the load propagation displacement of the physical body.

Claim 4 (Currently Amended): The computer readable record medium recorded with the program according to Claim 3, ~~characterized in that~~ wherein the first through the n-th material agents are formed in a load propagation direction when the transmitted load is larger than a predetermined threshold value.